

WHAT IS CLAIMED IS:

1. 1. A method for transmitting data across a network comprising:
2 receiving packets of data;
3 combining the packets of data based on packet header destination information to
4 form a first combined file;
5 compressing the first combined file to form a first compressed file; and
6 transmitting the first compressed file.

- 1 2. The method for transmitting data across a network according to claim 1,
2 further comprising repacketizing the first compressed file, wherein the transmitting step
3 transmits the repacketized first compressed file.

- 1 3. The method for transmitting data across a network according to claim 1, wherein
2 the packets combined to form the first combined file have headers addressed to the same
3 first subnetwork, the first subnetwork comprising a plurality of users.

- 1 4. The method for transmitting data across a network according to claim 3, further
2 comprising inserting headers addressed to the first subnetwork on the packets of the
3 repacketized first compressed file.

- 1 5. The method for transmitting data across a network according to claim 3, further
2 comprising:
3 selecting a second group of packets of data with headers addressed to a second
4 subnetwork;
5 combining the second group of packets of data to form a second combined file;
6 compressing the second combined file to form a second compressed file; and
7 transmitting the second compressed file.

1 6. The method for transmitting data across a network according to claim 5, further
2 comprising repacketizing the second compressed file, wherein the transmitting step
3 transmits the repacketized second compressed file.

1 7. The method for transmitting data across a network according to claim 6, further
2 comprising inserting headers addressed to the second subnetwork on the packets of the
3 repacketized second compressed file.

1 8. The method for transmitting data across a network according to claim 5, wherein
2 the compressing steps compress the first combined file according to a first compression
3 algorithm and compress the second combined file according to a second compression
4 algorithm.

1 9. The method for transmitting data across a network according to claim 1, wherein
2 the receiving step receives the packets of data from a third subnetwork.

1 10. The method for transmitting data across a network according to claim 1, further
2 comprising ignoring packets destined for at least one of the third subnetwork and a fourth
3 subnetwork based on header destination information.

1 11. A method for transmitting data across a network comprising:
2 receiving packets of data;
3 combining and compressing the packets of data destined for a first subnetwork
4 according to a first compression algorithm to create a first compressed file; and
5 combining and compressing the packets of data destined for a second subnetwork
6 according to a second compression algorithm to create a second compressed file.

1 12. The method for transmitting data across a network according to claim 11, wherein
2 the combining and compressing the packets of data destined for a first subnetwork
3 step further comprises compressing the packets of data destined for the first
4 subnetwork according to a first compression algorithm based upon first header

5 destination information and the combining and compressing the packets of data
6 destined for a second subnetwork step further comprises compressing the packets
7 of data destined for the second subnetwork according to a second compression
8 algorithm based upon second header destination information.

1 13. The method for transmitting data across a network according to claim 11, further
2 comprising:

3 repacketizing the first compressed file;
4 repacketizing the second compressed file; and
5 transmitting the packets of the repacketized first compressed file and the packets
6 of the repacketized second compressed file.

1 14. The method for transmitting data across a network according to claim 11, further
2 comprising ignoring packets destined for a third subnetwork based on third header
3 destination information.

1 15. An apparatus for transmitting data across a network comprising:
2 an input that receives packets of data;
3 a controller that combines packets of data based on packet header destination
4 information to form a first combined file;
5 a first compressor that compresses the first combined file to form a first
6 compressed file; and
7 an output that outputs the first compressed file to the network.

1 16. The apparatus for transmitting data according to claim 15, wherein the controller
2 repacketizes the first compressed file and the interface outputs the repacketized
3 compressed file to the network.

1 17. The apparatus for transmitting data across a network according to claim 15,
2 wherein the packets combined to form the first combined file have headers addressed to
3 the same first subnetwork, the first subnetwork comprising a plurality of users.

1 18. The apparatus for transmitting data across a network according to claim 17,
2 wherein the controller inserts headers addressed to the first subnetwork on the packets of
3 the repacketized first compressed file.

1 19. The apparatus for transmitting data across a network according to claim 17,
2 further comprising a second compressor, wherein the controller selects a second group of
3 packets of data with headers addressed to a second subnetwork and combines the second
4 group of packets of data to form a second combined file, the second compressor
5 compresses the second combined file to form a second compressed file, and the output
6 transmits the second compressed file.

1 20. The apparatus for transmitting data across a network according to claim 19,
2 wherein the controller repacketizes the second compressed file and the output transmits
3 the repacketized second compressed file.

1 21. The apparatus for transmitting data across a network according to claim 20,
2 wherein the controller inserts headers addressed to the second subnetwork on the packets
3 of the repacketized second compressed file.

1 22. The apparatus for transmitting data across a network according to claim 19,
2 wherein the first compressor compresses the first combined file according to a first
3 compression algorithm and the second compressor compresses the second combined file
4 according to a second compression algorithm.

1 23. The apparatus for transmitting data across a network according to claim 15,
2 wherein the input receives the packets of data from a third subnetwork.

1 24. The apparatus for transmitting data across a network according to claim 15,
2 wherein the controller ignores packets destined for at least one of the third subnetwork
3 and a fourth subnetwork based on header destination information.

1 25. An apparatus for transmitting data across a network comprising:
2 an input that receives packets of data; and
3 a controller that combines and compresses the packets of data destined for a first
4 subnetwork according to a first compression algorithm to create a first compressed file,
5 and combines and compresses the packets of data destined for a second subnetwork
6 according to a second compression algorithm to create a second compressed file.

1 26. The apparatus for transmitting data across a network according to claim 25,
2 wherein the controller further compresses the packets of data destined for the first
3 subnetwork according to a first compression algorithm based upon first header
4 destination information and compresses the packets of data destined for the second
5 subnetwork according to a second compression algorithm based upon second header
6 destination information.

1 27. The apparatus for transmitting data across a network according to claim 25,
2 wherein the controller repacketizes the first compressed file, repacketizes the second
3 compressed file and transmits the packets of the repacketized first compressed file and the
4 packets of the repacketized second compressed file.

1 28. The apparatus for transmitting data across a network according to claim 25,
2 wherein the controller ignores packets destined for a third subnetwork based on third
3 header destination information.